Jennifer Stock:

Welcome to another edition of Ocean Currents, I'm your host Jennifer Stock. On this show I talk with scientists, educators, explorers, policy makers, ocean enthusiasts, adventurers, and today historians. All uncovering and learning about the mysterious and vital part of our planet the blue ocean. I bring this show to you monthly on KWMR from NOAA's national marine sanctuary. One of 4 national marine sanctuaries in California all working to protect unique and biologically diverse organisms in our ecosystem. Cordell Bank is located just outside the radius of the Marin Sonoma coast and it's a thriving area of ocean life above and below the surface. The boundary between sea and land is the most fleeting and transitory thing on earth. This was said by Rachel Carson and isn't it. When you think about the very long history on this planet, our relationship with fleeting and transitory feature goes a long way back. Today, we are focusing on the edge of the sea. Where the ocean; bays and estuaries meet with land. On Ocean Currents we go over biological habitats and ecosystems in depth as it goe4s in marine species. But, my guest today is studying the human history on our shores, going back in time where humans walked and made their living off the land and sea. My guest is John Gillis, a history professor at Rutgers University. Spending part of his years in Berkeley, California, and part of it in Maine, he is has written several books, most recently, The Human Shore: Seacoasts in History. John welcome to KWMR. It's a pleasure to have you live in the studio.

John Gillis:

Thanks Jenny, this is great.

Jennifer Stock:

So, I originally contacted John because I recently read an opinion piece that he wrote about the sand mining that is happening globally. So we'll talk about that today. You had a different historical focus at the beginning of your academic career. It was recent in 2004 that you started studying the geography of the coasts. What brought you into the sea's edge?

John Gillis:

Well, that's a really good question. It all began when I realized that everywhere in the world is moving to the edge of the sea. Maybe not right to the edge. But I'm a way that it had devastating effects on the edge itself and the sea itself. Once my historical instinct kicked in, "when did this begin?" "When did the crowding of the shore begin?" And that caused me to look back 260,000 years to when Africans undergoing an ecological crisis of drought. Oh that sounds familiar. Came down to the shore, the extreme southern shore of their continent, discovered these marvelous caves, discovered the richness of the shore environment with all it's shellfish, various kinds of seaweed, etc. That's when it all began; it

doesn't begin in the Garden of Eden. The Garden of Eden was the shore which is the central message.

Jennifer Stock: Will you talk about the difference between the coast and the shore?

What's the difference to you?

John Gillis: The shore is, in my view, is to refer to the natural environment.

Which could never be totally natural. The way to talk about the shore is the intersection between land and water. Or to use a technical term. I wish everyone would adopt this because it is a lovely little term, the ecotone. The ecotone is where 2 ecosystems intersect and the combination of them is intersection; the interface. is the richest of all environments. So, you have 2 environments to begin with. You have the sea and you have the shore; put them together and it's a multiplier effect. Not only in the rich diversity in species, both land species and sea species. But also, the creativity and the generativity in this which has been proven time and time again with human history and natural history. So, I regard us as a marine species. I don't see why we should back away from that. We've been involved in water and we are water. That's what we're composed of. Let's call ourselves a marine species and that might help get us a little more funding; our species need to be preserved as well. My argument is that we can learn so much from that long

relationship.

Jennifer Stock: That's one of the things you write about, it's that overtime there

were populations along the coast and during sea level rise, the first sea level rise we know about in our paleo record. About 10,000 years ago the sea level was lower and then it rose. And there were massive populations and radical changes of life. Could you talk

about some of those communities?

John Gillis: Sure, if you go back all the way, more than 2,000 years, there has

been more than several of these events of sea level rise or sea level decline. And, somehow humans have survived all of these. I'm not a catastrophic historian because there are adaptations. But, the point of this is, is that we have encountered this before and we tend to panic in everything that is told to us. But, we certainly have to be aware of it. There have been many periods of human migration particularly along shores. All hunter-gatherer populations do is, when they run out of the richness of one particular area is that they move. And one particular area of human survival and development is movement. Shores move too, sand moves, beaches move.

These are the most transitory places on earth, they are so rich. But we are now trying to stabilize it and hold onto these shores that are simply counter productive. And that goes back to your question.

The shore is this living thing. Combining water and land. It lives, it moves, it fights back on it's own. And it has sustained itself for thousands of years. The coast however, is a recent invention. The idea of the seashore is one thing but the coast line is another. And it wasn't till the 18th century which was a blink of an eye ago, that surveyors, mappers, developers, drew a line in the sand, saying this is the shore line; let us sustain it, let us defend it. From that point on we were in trouble because we can't sustain it. There is no line; nature doesn't draw a line, nature loves curves, it loves things that live and move with us. And that's one of the things that you can take away from Thoreau or Rachel Carson.

Jennifer Stock:

The challenge being at this point in human history is that we have an increase in population rate. And I think that's something to be concerned about with this sea level, there is so many more people on this planet than we had in that last sea level rise. So, that's a concern.

John Gillis:

In the 1960s, Paul Ehrlich wrote a few books and he panicked everybody. Running out of space, running out of time, I don't see any evidence of that. The earth under proper stewardship and the sea and the shore accommodate, if done properly more than the population projections. It's simply the way we do it. It's not a numbers game, it never has been. But, in the conditions of capitalism, so few people have a voice in what happens to our environment, that does become a problem because this is not a democratic environment any longer, it used to be. There were no trespassing signs in the 19th century. Thoreau who was a shore lover, he just trespassed over everything.

Jennifer Stock:

For those tuning in this is KWMR and you're listening to Ocean Currents, my name is Jennifer Stock. And my guest today is John Gillis and he is a historian and author of The Human Shore: Seacoasts in History and as I look at the title of the book I see people on the coast or the shore and I really like the distinction you make between the shore and how it's living, breathing, and fluctuating ecotone vs. the coast. Which is very human generated and it makes a lot of sense to me.

John Gillis:

The lineated is your word. Humans developed geometry and developed linearity. But that is an imposition on nature.

Jennifer Stock:

One of the things I picked up in your book is that civilization approached lands around the world, and there was no where else to go except for the sea. By the end of the 19th century and still today it was assumed that of all the places on this planet, the ocean

has been least affected by human kind. And I was like "what?!" But then you go on and say the frequent references that people say eternally, makes it seem unchangeable but where do you think historians have changed that perspective?

John Gillis:

Rachel Carson talked about immortality and a new book called Immortal C, which is a corrective to this on the rate of extinctions around the world in terms of fish. I think we need to credit our comrades in science for discovering the degree to which the sea is mortal. But now we can take that insight back thousands of years and find more moments of more challenging things. Like when huge fish disappeared or were overfished and were both warnings and hopeful signs to get through some of this.

Jennifer Stock: And rebound and sustain ourselves as a population.

John Gillis: Yes. Absolutely.

Jennifer Stock: So, let's talk about your bicoastalism. You consider yourself as a

bicoastal. And you have a pretty interesting definition. What is it?

John Gillis: Well, there's a downside to bicoastalism. It causes you to ignore

the middle. And I don't think you can afford in this country to be too elite in the coastal communities. Cause the coastal communities are a little more liberal than the middle. We can't afford that; so, I'm sometimes a little eery on identifying myself as a bi-coastal but bicoastalism really began with air traffic. So, you have to go back to the 60's and 70's where people could fly over the rest of the country and begin to ignore it. We've got to reconcile ourselves. To the middle west, my parents were middle westerners, they're both buried in Iowa so I want to take care of the whole thing. So, it's a

problem.

Jennifer Stock: So, what's your other coast from then to now?

John Gillis: Well, I'm here in Berkeley. But, my true home ecologically and

spiritually, is on an island called the Great Gott Island off the coast of Maine. It is one of the great treasures of the world, it is a very small island and has never had any commercial use except for in the days of fishing, lobster fishing was still operational there. But, as soon as the motor powered boat came in the people of Great Gott Island picked up and went to shore, went to harbor I should say. And at that point the island was abandoned, some of the houses fell down and sold off. From that point on it has only been a summer island, there has been no one there right now. I wrote a book called *Islands of the Mind* and explained to myself "why do

people like islands so much?" It turns out it isn't so obvious until you understand the whole history of a religion of cultural change, geography, and so on.

Jennifer Stock:

That's fascinating and I want to follow up on that on another time because I, for a while, had a fascination about islands and I was living island to island. I loved the remoteness and the difficulty to get food and being trapped by the weather. For me, it was the most romantic life to have, being able to live in such unity with the environment. It was such a special time. I'd definitely want to learn more about that. The east coast is different in the sense of the changes it receives annually to the shore. We have hurricanes, these barrier islands, and that's how they've always been geologically. But, we have planted ourselves onto these islands and I'm curious about your thoughts about rebuilding these ideas with Hurricane Sandy especially on the Jersey Shore. I don't know what their plans are but I remember hearing they will rebuild. What are your thoughts on that?

John Gillis:

Nothing is worse than to fight against nature and not to take in account, the renewal of these barrier islands and all the islands. The big storms are vital to the health of these islands because they replenish them. So, it's a little understood and is there a plan; no there is no plan because like most American politics there is no long term planning, there's no strategy and the obvious thing to do is retreat but that is unacceptable.

Jennifer Stock:

I did hear on MPR that there are some communities on Staten Island to not come back.

John Gillis:

Yeah, there are some abandoned communities. The sad part is, that they are the poorest. They had no power to begin with and their lease and tenures are usually bad. The problem is the wealthy people that have bought into the shore fronts and have invested heavily onto it, to have a bunch of people to back them up about this replenishment. It's an all out political battle, it's going to come down to the rich versus the middle class.

Jennifer Stock:

It'll be interesting to see. Hopefully, we won't have more loss of life as a result of these storms but they're pretty intense and they aren't going away. I want to go way back to earlier times and you were writing about the historical use of the sea. Homosapiens living by the sea, not inland. How was their success from shore or inland? Was there more success, strategies by the coast.

John Gillis:

In the long run I believe they have been more successful along the coast. There are plenty of examples of adaptations, for example, people living in high altitudes. But, the fact is that the sea provides a lot of things and not just the richness of the food sources. But it seems to provide information, change and the rhythms of change. And that seems to be a place of creativity. Where do artists now look for inspiration for their works? Where do authors go? This all seems to suggest that it's a spiritual source. Particularly the shore, it is a liminal area, it's full of mystery, it stimulates to be curious about what's going on. It's transitional, it's liminal in a sense of the sights to be seen. There's a lot to be thought about out there. But, we have to take more conscience of it.

Jennifer Stock:

This makes me think of a new book that's out called <u>Blue Mind</u> by Wallace J. Nichols. It's all about this. What is it about the sea that it relaxes us and changes us. He really goes into the neurology and of the sea. Reading parts of your book it really comes down to that. There is just that big connection.

John Gillis:

Where does he exist, this man?

Jennifer Stock:

Davenport, California, south of Pacifica and north of Santa Cruz. Well, I wanted to ask one more question before we go onto the break. Then, I would love to talk about the sand issues going on in our second half. One thing that we're thinking about with the shore and the coast. We historically think of the shore and coast as a place of danger and fear, to be avoided. When did that perception change? When did we switch from that danger fear?

John Gillis:

It's remarkably quick and recent. It's the late 18th century, it's the romantic period. It happened first among poets but then quickly spread to the general population. People would come down to the shore and see in awe, and began bathing, and all sorts of other things. And the artists started coming down to the shore. And, in Maine for example, people flocked to Maine in the middle of the 19th century onward because they saw the pictures, they read the literature, they wanted to see it for themselves. So, there's a powerful intellectual pull and it comes in a particular moment. It is a revolution of the mind as much as anything else. Which gave us the thing called romanticism. But, it's a lot more.

Jennifer Stock:

Wonderful. Art is huge. I'm sure music as well. Well, we're going to take a quick break here. This is Ocean Currents on KWMR. My name is Jennifer Stock and my guest in the studio is author John Gillis.

[break]

Welcome back! Thanks for sticking with us. You are on KWMR, in the studio with me I have John Gillis a historian and an author. And we are discussing the shore and the coast, which I have learned that they are very different from each other. One being very natural and the other being the human influence. A couple things came up earlier that I wanted to just bring up now. How I found John is that I read his opinion piece in the New York Times about the global trade on sand. And I haven't read much about this. I read a ton about mining and knew about sand being a nice commodity but I didn't know that it was a billion dollar business growing. And I saw a film trailer about this which debuted at a pre-event of a film festival. This is a big issue, you have a lot to say about it. So, what's going on with the sand business in the world?

John Gillis:

First, you have to think about the sandy beach that we treasure so much today. It is a recent phenomenon. The beach didn't attract people till the 20th century when coming down to the beach or the shore became a favorite activity. And this came from our love of nature, swimming, really wasn't a mass sport until the late 19th century, and sunbathing. The Germans brought us through the worship of the naked body of the sun and nature. And by the 20s beaches have become all the rage. It's a place to be seen and a place with fewer clothes on. This is when sand became a commodity and needed to be taken care of and replaced. The shores were called cobble, which were these small stones that weren't comfortable to lay on. Now beaches are sand which are pure white or black. This is so recent which happened after the second world war where beaches became popular. And sandy beaches meant everything to the elites, ultimately to the masses. So, the point to be meant is that beaches that we know, that are pristine, clean, no seaweed, no wrecks. This is only about most 50 years. And I'm not entirely convinced that it will survive due to the number of people that come down to beaches and the wrecks that are happening. It's quite possible that 100 years from now that beaches will be entirely different in that time.

Jennifer Stock:

It is definitely the human perspective of the beach culture and, in my mind, it is the ecosystem of the shore birds and elephant seals and harbor seals, and the beach rat committee where it brings things up from the tide. But that scares me, that we might lose the thought of beaches.

John Gillis:

Yeah but the beaches we talk about; the pristine sandy beaches are only small proportions of all the shores in the world. Many

shores have very little sand. So, there is no reason why we can't save the shores and save the beaches to the back burner. Because bow the presence of beaches is really hurting the shores. And the shoe is the larger thing we need to keep an eye on.

Jennifer Stock: So, when we think of the preservation of the beach. You're thinking

about beach re-nourishment, when sand is washed away and communities and cities bring sand back to bring people back.

Cause we don't really do that here on this coast.

John Gillis: Until you get to SoCal, this isn't really a beachy community. But the

cold coast of California, Oregon, and Washington aren't really beachy places. Frankly the Jersey Shore doesn't hold a candle of the ordinary piece of the Mendocino coast. In terms of all the marine life and the ecosystem and the sheer dynamic of the

shores, there is no comparison.

Jennifer Stock: That's interesting because I grew up near a beach called Fire

Island and I spent a lot of time in the federal wilderness area. And in my mind that was a beach. The Jersey Shore is such a foreign

place. There is a big difference with the natural beaches.

John Gillis: I would love to have an argument with somebody about this; the

sand beaches are really disposable.

Jennifer Stock: Well it sounds like we're losing sand from these shores

permanently to the companies. Can you tell us a little bit about this business in terms of where it's happening and what areas are at

risk?

John Gillis: There's always some place in the world that people are willing to

sell their own heritage to be able to live. It all depends where you are. But, one of the biggest users, the biggest consumer is concrete. Concrete is what seawalls are made of. Seawalls and mining are the biggest eroders of beaches because they stop the

natural flows which kill the beaches, which make us more

vulnerable to erosion. These things that are made to "protect" the

beaches is what's "killing" them in a sense.

Jennifer Stock: There is this movie festival which is based on sand and the

filmmaker that produced it was influenced because he went to a beach that he grew up on and there was no sand. So, he did research and discovered this big thing and I was just blown away. And it is beach sand that is highly preferable because it doesn't

have the right grain size.

John Gillis: There's another site your audience should go to which is the best

site on the web for coastal preservation. It's called Coastal Care. Just Google it. It is the work of two Southern Californians who have devoted themselves to coastal care. And it is illustrated every week.

There's an article update.

Jennifer Stock: Well, you've been involved in other projects. What are you working

on right now?

John Gillis: I have to go back to say as a social historian. I left behind political

history which was boring. So, I developed my brand in social and cultural history. Trying to understand how society and culture has changed over time. And now I want to take on a project that has intrigued me for a while now and that is our spatial and temporal space of ourselves. It is not obvious that this is the case, but my latest project is on the edginess that we condemn ourselves to. To be edgy is to be up to date, the cutting edge of change. To be edgy on coast is to harden coast, and deny their natural fluidity and

natural flexibility. What this leads me to is the interesting

observation of how the coasts or the edges have come to dominate the mental geography. We imagine America it's an intense west east coast or the gulf coast. And in between there is a big blank. This is not the way this country wanted to be formed, nor is it the way we lived in cities. There the thing was the community the middle, and it's getting all washed out. You don't know when you're leaving a city or entering the city. The point is that as people, today home is not organized around the heart. There's an emptying out or

decentering life. I wanted to explore in writing a history about this to

engage people on why we're fleeing to the edges.

Jennifer Stock: Very interesting topic to dive in to. You definitely have a different

array of writings. Is there a place where people could follow you?

John Gillis: Yeah. I have a website. John R. Gillis. But when you Google that in,

you'll find a mix of things: bibliography, articles, etc.

Jennifer Stock: Do you paint a lot?

John Gillis: I do a lot in Maine, but not a lot here. It's a joy and if I ever stopped

Writing, I would go onto painting.

Jennifer Stock: We have a few more minutes. If you had to tell people about the

relationship to the sea, what would it be?

John Gillis: The relationship to the sea is a critical one. It is our responsibility.

We can change it, we have changed it several times over 200,00 years. We have changed it even more in the last 100 to 200 years

and even more in the last 50 years. So, as a historian I understand that everything is up for grabs. Everything is up for change. I can show you how much it has changed. I can show you the struggles that people have had over the seafront, shores, wetland; that have been decided over some of the cruelest means of force. And also, sometimes, through writing, persuasion, poetry, and art. Look at me, I don't have power or money or any political standing but writing a book makes me feel like I'm doing something in the world.

Jennifer Stock:

Wonderful. John, thank you for coming to the studio and sharing. And for those tuning in I'm talking to John Gillis, author of <u>The Human Shore: Seacoasts in History</u>. And I appreciate you coming in today.

John Gillis:

Well I said on the break. You're such a great speaker and very knowledgeable about topics we share. So thank you so much.

Jennifer Stock:

Thank you for the compliment. I really appreciate that. This is the reason I started this show, because I love the ocean and the coast and the shore so much that it helps me stay engaged in all these topics. So, I appreciate that so thank you. Alright, we're going to take a quick break and I have some local announcements to share.

[break]

Alright. So, just a couple of short announcements here before we wrap up Ocean Currents. The gulf of the Farallones and Cordell bank National Marine Sanctuary is having sanctuary advisory meetings here in Point Reyes. Both on the same day; February 25th. And I want to share that these are public meetings. So, if you are interested in what the sanctuaries do and how we protect these place come by. These advisory meetings are public and sometimes very newsy. I know there will be information about the proposed sanctuary expansion. So, the date is February 25th; Cordell Bank advisory council meeting will be up in Point Reyes National Seashore Association building off Morgan Horse Ranch at 3:45. And the gulf of the Farallones will be in the classroom. Thanks for tuning in today, Ocean Currents is always the first Monday of every month and you can listen to past podcasts, just go on iTunes or you can go onto the Cordell Bank website and listen to past shows on there as well. Thanks for tuning in today.